

REMARKS

Applicants agree that the drawings supplied with the 2001 filing should be examined.

The rejection of claim 1 under 35 USC 112, second paragraph, is moot as claim 1 has been canceled.

Claim 5 has been rejected under 35 USC 112, second paragraph. This rejection is respectfully traversed.

The Examiner's position is that claim 5 recites "simulating a head passing in near proximity to a simulated disc media surface to generate an air bearing transfer function for a spectral density" but the claim does not recite the relationship between such a simulation and the generation of an air bearing transfer function. The Examiner is correct that the claim does not recite the relationship between such a simulation and the generation of an air bearing transfer function. 35 USC 112, second paragraph, states that "the claims must set forth the subject matter that applicants regard as their invention." In this case, the subject matter that Applicants regards as their invention within the scope of claim 5 is any relationship between such a simulation and the generation of an air bearing transfer function. The fact that the claim is open to any such relationship does not make the claim indefinite under 35 USC 112, second paragraph. By the Examiner's standard for "indefiniteness," any claim that discloses a genus should be indefinite because the genus could include countless species within the scope of the genus. Clearly, the Examiner standard for "indefiniteness" is not the legal standard.

Claim 5 reads "head-media spacing modulation spectrum." The term "spectrum" simply means a spread in values of the head-media spacing modulation. There is nothing indefinite about the term "spectrum." Applicants have the right to be their own lexicographer. The

Examiner's position that multiplying a function by a function results in a function, might be correct in some cases, but that does not mean that the term "spectrum" is indefinite.

With respect to the indefiniteness rejection of claim 6, please note that "summing the head-media spacing modulation spectrum" means adding the different values of the head-media spacing modulation. The sum could then be divided by the number of head-media values to determine an average head-media value.

In claims 11 and 13, the Examiner states that "d" in the term " $d\lambda$ " is not defined. Applicants respectfully submit that "d" and " λ " are not separate terms; instead " $d\lambda$ " means a differential of some function of λ . The equations in claims 11 and 13 are equations for integration. There is nothing wrong or indefinite about these equations, which persons of ordinary skill in the art would recognize.

Claim 17 has been canceled.

Claims 1-20 were rejected as being obvious over Mee. This rejection is respectfully traversed.

Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, MPEP 2142, states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Let us analyze whether the requirements to establish a *prima facie* of obviousness has been met in this case.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The Examiner states, “Motivation is found throughout the Mee reference, as well as in the nature of the problem to be solved and the knowledge of a person of ordinary skill in the art, in order to produce a system that calculate[s] the proper spacing of the head-media interface.” See page 8, lines 8-11, of the Action.

The Examiner’s stated motivation to combine Mee and “the knowledge of a person of ordinary skill in the art” begs the question of why persons of ordinary skill in this art would have been motivated to modify Mee’s disclosure to arrive at the claimed invention. The Examiner’s selected motivation is, in fact, so *general* in the context of the relevant art that it constitutes no more than the reference to a general level of skill in the art found deficient in *In re Lee*, 277 F.3d, 1338, 61 USPQ2d 1430 (Fed. Cir. 2002). The Examiner’s motivation applies to virtually every invention, regardless of what it might be. As emphasized by the court in *In re Lee*, 61 USPQ2d at 1433, the Examiner must present specific evidence of motivation, not the generalized evidence relied on in the Action:

When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. See, e.g., *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001) (“the central question is whether there is reason to combine [the] references,” a question of fact drawing on the Graham factors).

The burden imposed by *Lee* is not an impossible burden, as explained by the court in *In re Thrift*, 298 F.3d 1357, 1364-65, 63 USPQ2d 2002 (Fed. Cir. 2002), with respect to the references relied on by the Board in that case:

In the present case, the reasoning articulated by the Board is exactly the type of reasoning required by *In re Lee*. Both the

examiner and the Board clearly identified a motivation to combine the references, stating that the skilled artisan would have “found it obvious to incorporate the speech input and speech recognition techniques taught by Schmandt into the expert system of Stefanopoulos in order to reduce the need for less user friendly manual keyboard and mouse click inputs.” Decision on Appeal at 5; accord Aug. 7, 1996 Office Action at 3. The motivation to combine the references is present in the text of each reference. The Schmandt reference itself verifies this motivation, stating that “allowing users to remain focused on the screen and keyboard, instead of fumbling for the mouse, would be beneficial in a workstation environment.” Schmandt at 51. Stefanopoulos itself, while not expressly disclosing the use of speech recognition, sets forth the motivation to combine the references, stating that “there are alternative means to select the buttons, including . . . voice-activated transfer means, which may be readily adapted for use with the present invention by those skilled in the art.” ‘237 patent, col. 4, ll. 34-38.

The reliance in the Action on the fact that “[m]otivation is found throughout the Mee reference, as well as in the nature of the problem to be solved and the knowledge of a person of ordinary skill in the art” (cited above) comes nowhere close to the analysis required by *Lee* and approved in *Thrift*.

Based on *Lee* and *Thrift*, the question to ask at this point in the analysis is: why, based on Mee, would a person of ordinary skill in the art have had any reason to arrive at the claimed invention?¹ There is only one reasonable answer: impermissible hindsight reliance on Appellants’ disclosure and claims as a roadmap to choose Mee and argue that “[m]otivation is found throughout the Mee reference, as well as in the nature of the problem to be solved and the

¹ Motivation or suggestion must not merely be to combine references generally; rather, it must be to specifically combine the prior art teachings in the way claimed. *ATD Corp. v. Lydall Inc.*, USPQ2d 1321 (Fed. Cir. 1998) (“Determination of obviousness can not be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention. There must be a teaching or suggestion . . . to look to particular sources of information, to select particular elements, and to combine them in the way they were combined by the inventor.”)

knowledge of a person of ordinary skill in the art.”² This failure to present evidence of motivation alone requires that the rejection be withdrawn.

The second requirement to establish a *prima facie* case of obviousness is that there must be a reasonable expectation of success. Could there have been any expectation of success based on the teachings of Mee to arrive at the invention of claim 5, for example, which recites a method of determining a portion of a head-media spacing modulation spectrum of a portion of an actual disc media surface by simulating a head passing in near proximity to a simulated disc media surface to generate an air bearing transfer function for a spectral density; generating a topography function for the actual disc media surface; and multiplying the topography function and the air bearing transfer function to provide the head-media spacing modulation spectrum? There would have been *no* such expectation of success. The reason is quite simple: the Examiner has discussed several aspects of Mee but has failed to explain where it teaches the three limitations of claim 5, stated above. How can there be any reasonable expectation of success of arriving at the claimed invention when Mee fails to even recognize the features of the inventions that have been recited in claim 5 as the limitations therein?

The third requirement to establish a *prima facie* case of obviousness is that the prior art reference (or references when combined) must teach or suggest all the claim limitations. In the pending case, the Examiner has failed to even show where Mee teaches or suggests all of the claim limitations. Instead, the Examiner states, “Any limitations not specifically mentioned would have been obvious to a person of ordinary skill in the art the time of Applicant’s invention in combination of his own knowledge of the particular art as details of proper implementation of the teachings of Mee.” See page 8, lines 13-15, of the Action. By this logic, all inventions could

² Appellants recognize that an Examiner cannot search prior art to use in examining a patent application without reading the application and its claims first. That much “hindsight” is permissible and expected in the examination process. However, that is as far as hindsight in the examination process can go. Once the Examiner finds prior art that appears to be relevant based on the limited amount of hindsight that is permissible, *Lee* and *Thrift* require the Examiner to point to *evidence* within the prior art references themselves as to why persons of ordinary skill in the art would have been motivated to combine the disclosures so as to arrive at the claimed invention. Appellants’ position rests on the Examiner’s failure to produce and rely on objective evidence of motivation in the prior art *itself*.

be deemed non-patentable and obvious. The Examiner's reasoning fails to meet the third requirement to establish a *prima facie* case of obviousness that "the prior art reference (or references when combined) *must* teach or suggest all the claim limitations." [Cited above; emphasis added.]

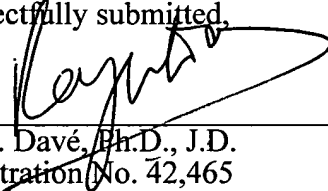
In light of this Amendment, a Notice of Allowance is respectfully solicited.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing attorney docket No. **146712013800**.

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Respectfully submitted,

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